

Studies on the Cerambycidae (Coleoptera) of Hubei Province, China, Part I

Nobuo OHBAYASHI

Entomological Laboratory, Faculty of Agriculture, Ehime University,
3–5–7 Tarumi, Matsuyama, 790–8566 Japan,

Tatsuya NIISATO

Bioindicator Co. Ltd., Yarai-chô 126, Shinjuku-ku, Tokyo, 162–0805 Japan

and

WANG Wen-kai

Agriculture College, Yangtze University, Jingzhou, Hubei 434025, China

Abstract The result of our recent survey of the cerambycid fauna of Hubei Province, Central China, is presented. Five new species, *Notorhabdium bangzhui*, *Encyclops hubeiensis*, *Parastrangalis houhensis*, *Callimoxys orientalis* and *Glaphyra planicollis* spp. nov. are described and illustrated. *Notorhabdium bangzhui* is not only a second member of the genus but also new to the fauna of China. The discovery of *Callimoxys* in China is very important from the zoogeographical viewpoint since the genus has so far been known from the two isolated ranges, Europe and North America. Besides, *Parastrangalis mitonoi* and *P. shaowuensis* comb. nov. are transferred from the genus *Strangalomorpha*. *Nanostrangalia torui* HOLZSCHUH, *Kumbir nomurai* HAYASHI and *K. pilosipes* HOLZSCHUH are newly recorded from Hubei Province.

Introduction

The insect fauna of China is categorized in the Palearctic and Oriental biogeographical regions and is one of the richest in species diversity in Asia. The cerambycid fauna of China was once revised by GRESSITT (1951). He listed 1,895 taxa including species and subspecies. Recently in 2002, HUA published a “List of Chinese Insects, Vol. II” in which he recorded the taxa known up to 1990. According to this list, the number of species and subspecies of the Cerambycidae (including Disteniidae) increased to 2,643 in these 40 years. On the other hand, JIANG and CHEN (2001) mentioned in their revisional study of the Chinese Lepturinae as follows: “—due to the

great change of environmental conditions, such as the rapid development of urbanization caused the disappearance of forests and loss of habitat and ability of existence of these beetles—these factors resulted that the actual number of the species should be greatly reduced—”. However, the environmental policy of China now becomes better and there are many nature reserves in spite of remarkable economic development. These protected areas in China still retain unspoiled natural environment and are expected new scientific discoveries.

In the autumn of 2003, one of the authors, WANG invited OHBAYASHI for guest professor of Yangtze University, and a cooperative study of insect diversity in the western districts of Hubei Province was started. In the spring of 2004, we visited the Houhe National Nature Reserve of Wufeng Tujiazu Zizhixian and were able to collect many interesting insects despite of quite bad weather condition. Above all, the cerambycid species belonging to the genus *Notorhabdium* and *Calymoxis* were unexpected exciting discoveries. This is the first part of our study of cerambycid beetles collected by this investigation.

The abbreviations used for the depositories of type specimens are as follows: EUEL—Entomological Laboratory, Ehime University, YUAC—Agriculture College, Yangtze University, TN—T. NIISATO private collection.

Lepturinae

Xylosteini

Notorhabdium bangzhui N. OHBAYASHI et WANG, sp. nov.

(Figs. 1, 7)

Female. Length 9.5 mm from the tips of mandibles to elytral apices, width 1.5 mm across humeral angles.

Body extremely slender with spindly appendages, almost parallel-sided. Head and pronotum dark reddish brown; elytra reddish brown; antennae, maxillary palpi and legs black except for tibiae and tarsi which are more or less reddish; ventral surface black but the apical half of prosternum is reddish brown. Head and pronotum sparsely provided with thin recumbent brown pubescence; same pubescence on scutellum more or less denser than that of pronotum; the hairs arising from elytral punctures light brown, thin, short and subrecumbent; elytral apices densely fringed with golden hairs; ventral surface rather closely covered with thin subrecumbent brown pubescence except for head and apical half of prosternum which are naked.

Head (Fig. 1–a) moderate in length, obliquely produced anteriad, almost of the same width as pronotum across lateral tubercles, closely punctured throughout; gena almost as long as long axis of eye; interocular distance 2.2 times as large as the distance between antennal cavities; tempora distinct, subparallel behind eyes and then

strongly constricted; vertex transversely convex above and declined towards neck; eyes rather small, moderately coarsely faceted, almost entire oval with slight emargination at upper anterior margins; distal segment of maxillary palpus slightly dilated apicad and obliquely truncate at the apex (Fig. 1-d). Antenna filiform, slightly longer than body length; scape shorter than 3rd and longer than 4th; 4th half as long as 5th; from 5th to the last segment gradually decreasing in length; relative length of each antennal segment as follows:— 4.0 : 1.0 : 4.7 : 3.6 : 7.2 : 7.7 : 7.4 : 6.6 : 5.7 : 5.3 : 5.1.

Pronotum (Fig. 1-a) elongate, 1.52 times as long as basal width; disc closely punctured, provided with a smooth median line from the apex to basal third and a pair of round swellings at apical third; anterior margin slightly rounded anteriad; lateral sides once expanded laterad just behind apical margin, then widely constricted and following to distinct conical tubercles at basal third; hind angles hardly produced laterad; base almost straight; apical and basal margins narrowly bordered.

Scutellum triangular with gently rounded apex; stridulatory files entire and not di-

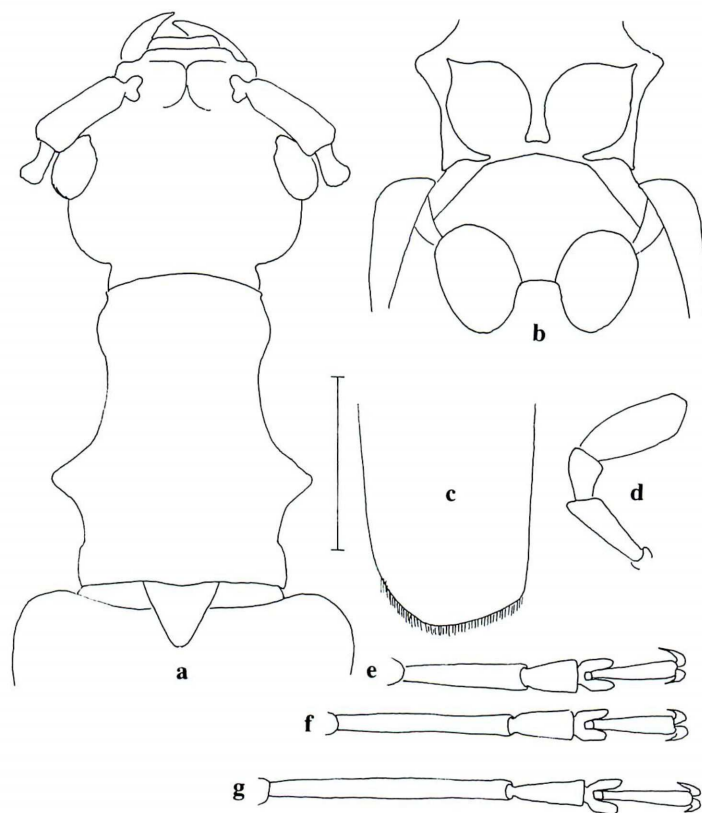


Fig. 1. *Notorhabdium bangzhui* N. OHBAYASHI et WANG, sp. nov. — a, Head and pronotum in dorsal view; b, pro- and mesosterna in ventral view; c, apex of left elytron; d, left maxillary palpus; e, tarsus of fore leg; f, ditto, mid leg; g, ditto, hind leg. Scale 1 mm except for "d".

vided.

Elytra elongate and parallel-sided, 3.3 times as long as width across humeri; both angles of each apex widely rounded (Fig. 1-c); disc moderately provided with large punctures throughout.

Prosternal process narrow and divergent distally with emarginated apex; mesosternal process as wide as metasternal process and receiving the round apex of metasternal process. Legs long and slender, last tarsal segments simple and not swollen; relative length of hind femur, tibia and tarsus 11:10:6.3; first segment of hind tarsus 3.6 times as long as second and 1.4 times as long as the remaining segments combined (Fig. 1-g).

Abdomen cylindrical, minutely rugosely sculptured; seventh tergite visible from above.

Holotype. ♀, Houhe, Wufeng Tujiazu Zizhixian, Hubei Prov., China, alt. 1,100 m, 30-IV-2004, N. OHBAYASHI leg. (YUAC).

Diagnostic notes. This is a second species of the genus *Notorhabdium* N. OHBAYASHI et SHIMOMURA, 1986. General characteristics of this new species are very close to those of *Notorhabdium immaculatum* recorded from the Malay Peninsula, but it can be easily distinguished from the latter by small body length, different coloration, small eyes, and so on. The differences of relative length of the forth antennal segment which is shorter than scape, simple structure of apical segment of tarsus (Figs. 1-e, f, g), cylindrical and exposed abdomen, width of mesosternal process which is as wide as metasternal process (Fig. 1-b) seem to suggest differentiation from the genus *Notorhabdium*, but this must be re-examined when the male specimen becomes available.

Etymology. This new species is dedicated to Mr. WANG Bang-zhu, vice-governor of Wufeng Tujiazu Zizhixian, who kindly supported our survey.

Rhagiini

Encyclops hubeiensis N. OHBAYASHI et WANG, sp. nov.

(Figs. 3, 8)

Male. Length 6.7–8.9 mm from the tips of mandibles to elytral apices, width 1.3–1.7 mm across humeral angles.

Body slender, almost parallel-sided. Head and pronotum black; elytra metallic green. Antenna reddish brown and apical part of each segment becoming darker; apical margin of clypeus reddish brown; maxillary palpi and legs yellowish brown except for apical half of distal segment of maxillary palpus, apico-dorsal area of fore femur, apical fourth of mid and hind femur, basal half of fore tibia, basal two-thirds of mid and hind tibiae which are black; each tarsal segment of fore legs infuscated apicad, middle and hind tarsi brown except for the base of second segment of middle tarsus

which is yellowish; ventral surface black but the color of abdominal sternites varies according to individuals as follows:— usually black except for the fifth sternite which is at least partly yellowish brown, and fourth and fifth sternites of a specimen are yellowish brown, but the sternites are entirely black in one male.

Head provided with recumbent pale yellowish hairs intermixed with long erect hairs on frons and genae. Head with vertex and pronotum rather densely covered with recumbent long golden hairs and sparsely intermixed with long erect golden hairs. Elytra moderately intermixed with long erect and short suberect pale yellow hairs. Ventral surface and legs moderately provided with long suberect and recumbent pale yellow hairs.

Head shorter and wider than pronotum across lateral tubercles, narrower than elytral base, closely punctured throughout; frons almost vertical with obliquely directed clypeus, gena short, about half as long as eye diameter; tempora distinct, slightly convergent posteriad, then strongly constricted; vertex flattened; eyes large, almost circular with slight emargination at upper margins, and distinctly prominent laterad; distal segment of maxillary palpus widely dilated apicad and obliquely truncate at the apex. Antenna filiform, slightly longer than body length; relative length of each antennal segment as follows:— 4.2 : 1.0 : 6.8 : 5.5 : 8.5 : 7.8 : 7.3 : 6.0 : 5.2 : 4.5 : 5.3.

Pronotum longer than basal width, 1.2–1.3 times as long as basal width, and slightly longer than width across lateral tubercles in both sexes; disc minutely and closely punctured; anterior margin slightly rounded anteriad; lateral sides provided with conical tubercles and constricted before and after the tubercles; hind angles rounded and not produced laterad; base bisinuate; apical and basal margin narrowly bordered.

Scutellum elongate tongue-shaped with round apex; disc rugulose; stridulatory files narrow, entire and not divided.

Elytra elongate, almost parallel-sided but slightly narrowed medially and widened again to just before the apex, 3.7–3.8 times as long as width across humeri, outer angle of apices gently rounded, inner angles angulated; disc densely provided with large punctures throughout.

Legs long and slender; each femur slightly clavate; first segment of hind tarsus 2.3 times as long as second and slightly shorter than the remaining segments combined.

Male genitalia as shown in Fig. 3. Tegmen shorter than median lobe, with paramere wide and flattened with many long setae mainly along inner side to apex; ring part straightly narrowed basad. Median lobe gently curved in lateral view, the apex strongly constricted with small projection in dorsal view.

Female. Length 8.0–9.6 mm from the tips of mandibles to elytral apices, width 1.5–1.8 mm across humeral angles.

Abdominal sternites yellowish brown except for the basal black area of first visible sternite, but two specimens have entirely black sternites. Antenna not reaching elytral apices; relative length of each antennal segment as follows:— 4.2 : 1.0 : 6.2 : 5.5 : 7.8

:6.7:6.0:5.0:4.5:4.0:4.5. Pronotum slightly shorter than male, 1.1–1.2 times as long as basal width. Elytra entirely parallel-sided, 3.7–3.8 times as long as width across humeri.

Type series. Holotype: ♂, Houhe, Wufeng Tujiazu Zizhixian, Hubei Prov., China, alt. 1,100 m, 30–IV–2004, N. OHBAYASHI leg. (YUAC). Paratypes: 6 ♂♂, 2 ♀♀, same data as for the holotype (EUEL & YUAC); 4 ♀♀, same locality, 28–IV–2004, N. OHBAYASHI leg. (EUEL).

Diagnostic notes. This new species is very similar to *Encyclops concinna* HOLZSCHUH recorded from Sichuan, China, but differs from it by bicolored legs, and much elongated elytra (3.7–3.8 times as long as width across humeri instead of 3.6 times). It can be distinguished from *Encyclops olivacea* BATES distributed in Japan by the following features: body larger, pronotum distinctly longer than width, lateral tubercles obtuse, elytra metallic green and hairs on the vertex and pronotum of golden color. It is also related to *E. viridipennis* MAKIHARA from Taiwan, but the golden hairs on the pronotum are sparser and elytral color darker than those of Taiwanese species.

Lepturini

Parastrangalis houhensis N. OHBAYASHI et WANG, sp. nov.

(Figs. 2, 5 & 9)

Male. Length 12.0 mm from the tips of mandibles to elytral apices, 15.1 mm to the apex of abdominal segment, width 2.6 mm (across humeral angles).

Body relatively large and elongate. Head, pronotum and ventral surface black. Antenna black and more or less becoming paler towards apical segments, each base of fourth to the last segment yellowish. Maxillary palpi and labrum yellowish brown except for the apical segment of the palpus which is darkened. Elytra yellowish brown with longitudinal black stripes in the following manner:– sutural margin narrowly black; a narrow middle vitta starting from a short distance from base and obliquely running towards apex, and another vitta starting some distance from humeri and running backwards along lateral margin; an outer vitta broad at the beginning, then once narrowed and again broadened from basal third and connected with the middle vitta at basal two-fifths, then narrowly extending apicad; these three vittae connected together near the apex. Legs with femora yellowish brown except for dorsum of mid ones and apical halves of hind ones which are blackish; tibiae and tarsi blackish brown except for yellowish underside of fore tibiae.

Head and pronotum covered with short suberect dark hairs intermixed with sparse thin long ones, and the pronotum with basal corner and apical small area of mesal longitudinal smooth line provided with silvery hairs. Elytra moderately provided with suberect yellowish hairs throughout. Ventral surface rather closely covered with re-

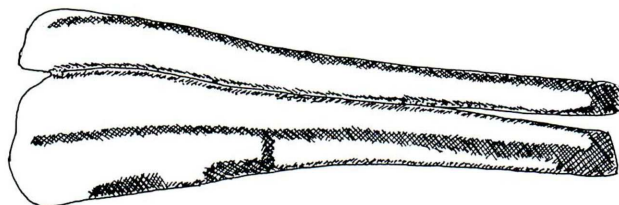


Fig. 2. *Parastrangalis houhensis* N. OHBAYASHI et WANG, sp. nov., dorso-lateral view of elytra.

cumbent pale yellowish pubescence.

Head moderate in length, as wide as pronotal base, closely provided with minute punctures throughout; frons quadrate, gena about half as long as long axis of eye; tempora almost invisible from above, strongly constricted just behind eyes; eyes large, prominent and almost entire; distal segment of maxillary palpus elongate with dorsal longitudinal groove, broadest at basal third and obliquely truncate at the apex. Antenna long, apical two segments exceeding the elytral apex; third the longest; fourth longer than scape: relative length of each antennal segment as follows:— 5.6 : 1.0 : 7.9 : 6.3 : 7.6 : 6.3 : 6.1 : 5.8 : 5.7 : 5.2 : 7.6.

Pronotum campanuliform, distinctly constricted just behind apex, longer than basal width, 1.05 times as long as basal width; disc rather meagerly swollen, minutely and closely punctured with mesal impunctate longitudinal area extending from middle to basal fourth; anterior and basal margin distinctly marginate; base bisinuate; hind angles well developed but not embracing elytral humeri.

Scutellum nearly triangular with rounded apex.

Elytra elongate, with outer margins rather strongly convergent from bases to the middle, then straightly extending apicad, 2.9 times as long as width across humeri; apex obliquely truncate; disc moderately provided with shallow punctures throughout.

Legs long and slender; each femur moderately clavate; hind tibia thickened from apical third and curved inwards; first segment of hind tarsus 2.3 times as long as second and as long as the remaining segments combined.

Abdomen not cylindrical; a half of sixth and whole of seventh tergite exposed from the elytral apices; seventh sternite without mesal depression; apical margin of eighth tergite gently rounded.

Male genitalia as shown in Fig. 5. Tegmen with paramere narrow, straight and bluntly pointed at the apices which are provided with many long setae on each antero-lateral side; basal ringed part separated and roundly connected at base. Median lobe slightly narrowed from middle to moderately constricted apex in dorsal view, rather strongly bent at basal third in lateral view; median struts connected with each other at base.

Type series. Holotype: ♂, Houhe, Wufeng Tujiazu Zizhixian, Hubei Prov., China, alt. ca. 1,200 m, 30–IV–2004, N. OHBAYASHI leg. (YUAC).

Diagnostic notes. This new species can be easily distinguished from the other

congeners by its largely exposed abdominal tergites and distinctive features of elytral vittae (Fig. 2).

***Parastrangalis mitonoi* (HAYASHI et IGA, 1951), comb. nov.**

(Figs. 4, 10)

Strangalomorpha mitonoi HAYASHI et IGA, 1951, 75; NAKAMURA *et al.*, 1992, 19.

Strangalia chujoi: TAMANUKI, 1942, 207, fig. 219 (*partim*, nec MITONO).

Notes. This Taiwanese species is most closely related with the species in the next lines. This species was first described as a member of the genus *Strangalomorpha*. The type species of this genus, *Strangalomorpha tenuis* SOLSKY, has distinct tempora, apical spine of hind tibia situated in a distinct recess before apex, and hind tarsus sulcated below. These characteristics are considered to be the characteristics of this genus, but *Strangalomorpha mitonoi* does not possess these features and the morphological characteristics coincide with those of the genus *Parastrangalis*, *e.g.*, the shape of pronotum, not sulcate tarsal segments, the head being abruptly narrowed just behind the eyes and without distinct tempora, metasternum of male with a pair of small projections and general appearance of male genitalia shows the typical structure of this genus as shown in Fig. 4. For this reason, *Parastrangalis mitonoi* had better be transferred to the genus *Parastrangalis*.

Specimens examined. 2♂♂, 3♀♀, vic. Riyuetang, nr. Puli, Nantou Country, Formosa, 18–IV–1976, K. USHIJIMA leg.; 1♂, Fushan, Wulai Township, Taipei, Taiwan, 29–III–2004, T. KURIHARA leg.

Distribution. Taiwan.

***Parastrangalis shaowuensis* (GRESSITT, 1951), comb. nov.**

(Fig. 11)

Strangalia (Strangalomorpha) shaowuensis GRESSITT, 1951, 112, pl. 4, fig. 3.

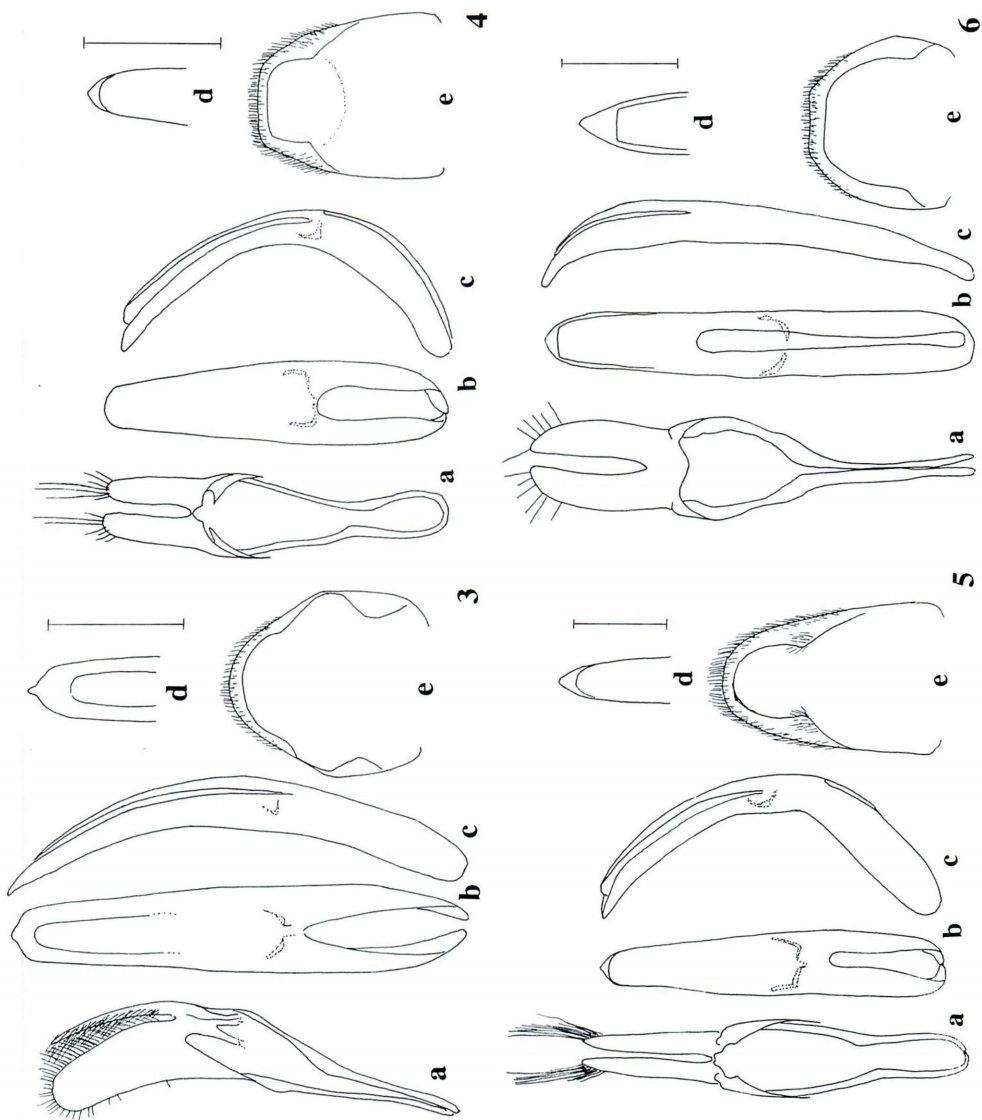
Strangalomorpha mitonoi?: HAYASHI, 1959, 62 (nec HAYASHI et IGA).

Strangalomorpha shaowuensis: HAYASHI & VILLIERS, 1985, 15; JIANG & CHEN, 2001, 165.

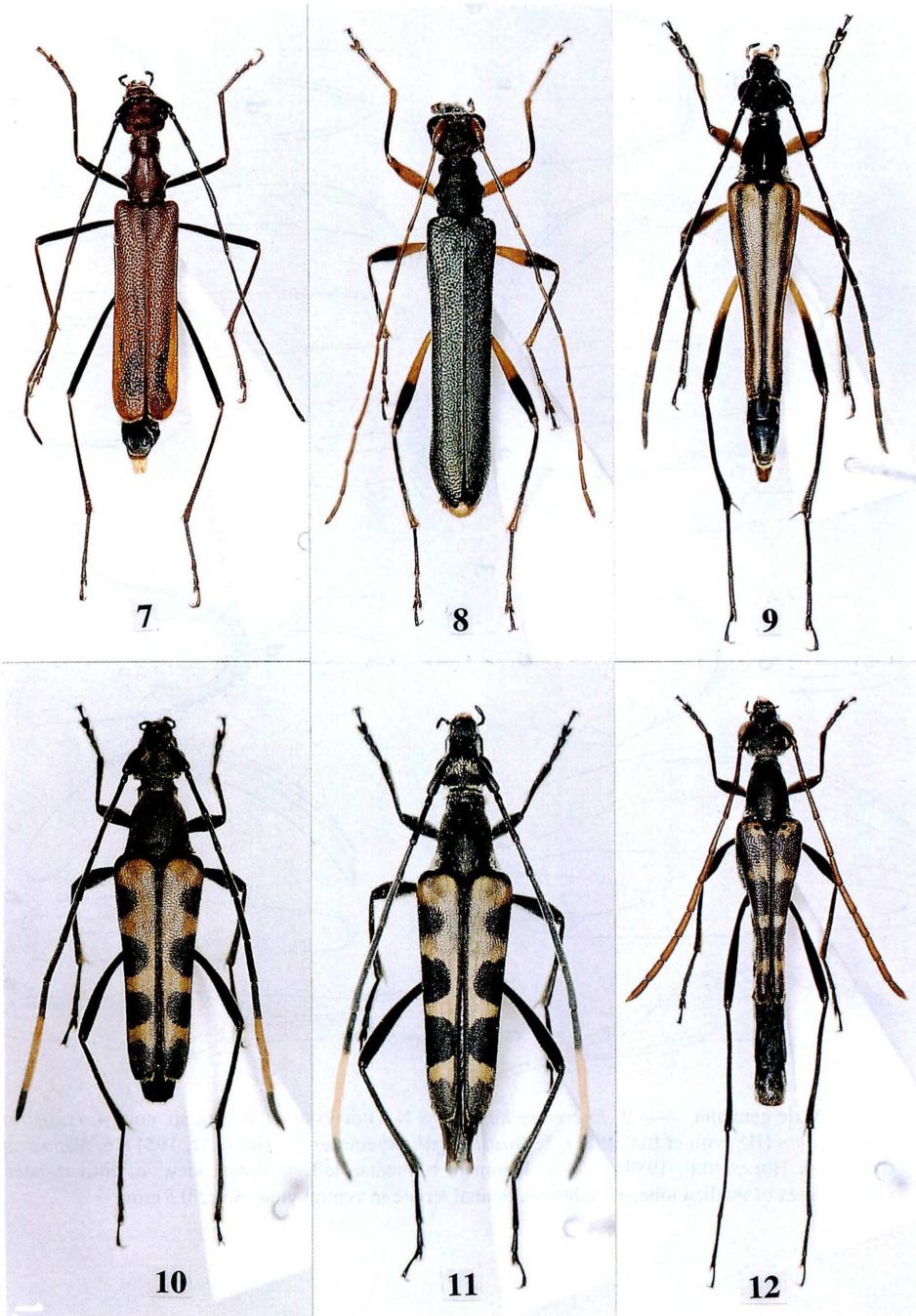
Notes. This species was first described as a species of the subgenus *Strangalomorpha* of the genus *Strangalia*. It is most closely related to *Parastrangalis mitonoi* and for the same reason as mentioned in the previous lines, this species is transferred from *Strangalomorpha* to *Parastrangalis*.

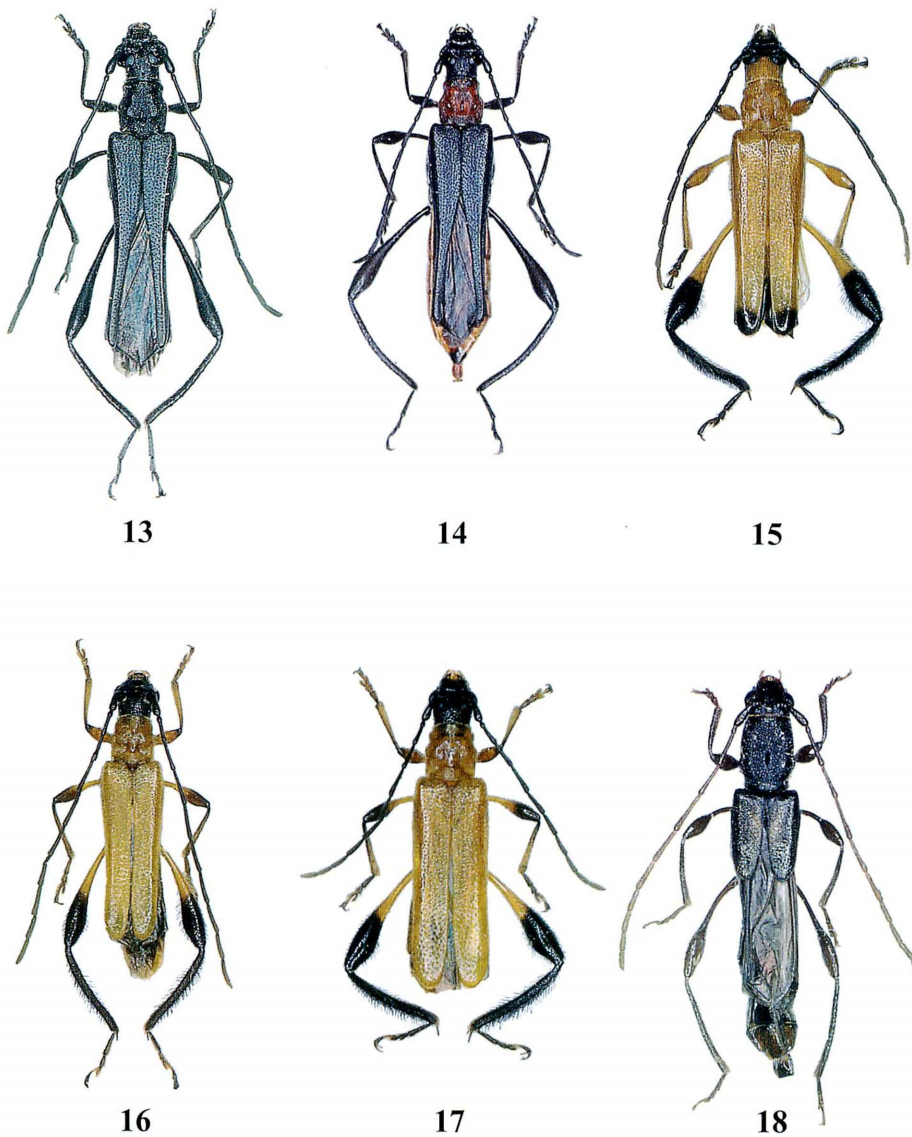
HAYASHI (1959) once suggested that the species *Strangalia (Strangalomorpha) shaowuensis* GRESSITT could be conspecific with Taiwanese species, *Strangalomorpha mitonoi* HAYASHI et IGA, judging from the original description and a figure. In 1985, however, HAYASHI and VILLIERS treated this beetle as an independent species of the genus *Strangalomorpha* without any comment.

A female specimen collected by our expedition is close in appearance to *S. mitonoi* HAYASHI et IGA, 1951, but these two species can be distinguished from each



Figs. 3-6. Male genitalia. — 3, *Encyclops hubeiensis* N. OHBAYASHI et WANG, sp. nov.; 4, *Parastrangalis mitonoi* (HAYASHI et IGA, 1951); 5, *Parastrangalis shaowuensis* (GRESSITT, 1951); 6, *Nanostrangalia torui* HOLZSCHUH, 1989. — a, Tegumen; b, median lobe in dorsal view; c, ditto in lateral view; d, apex of median lobe; e, eighth abdominal tergite in ventral view. Scale 0.5 mm.





Figs. 7–12 (on p. 460). Habitus of species. — 7, *Notorhabdium bangzhui* N. OHBAYASHI et WANG, sp. nov., holotype female; 8, *Encyclops hubeiensis* N. OHBAYASHI et WANG, sp. nov., holotype male; 9, *Parastrangalis houhensis* N. OHBAYASHI et WANG, sp. nov., holotype male; 10, *Parastrangalis mitonoi* (HAYASHI et IGA, 1951); 11, *Parastrangalis shaowuensis* (GRESSITT, 1951); 12, *Nanostrangalia torui* HOLZSCHUH, 1989.

Figs. 13–18 (on p. 461). Habitus of species. — 13, *Callimoxys orientalis* NIISATO et N. OHBAYASHI, sp. nov., holotype male; 14, ditto, female paratype; 15, *Kunbir pilosipes* HOLZSCHUH, female; 16, *Kunbir nomurai* HAYASHI, male; 17, ditto, female; 18, *Glaphyra* (*Glaphyra*) *planicollis* NIISATO et N. OHBAYASHI, sp. nov., holotype female.

other by the following points:

P. shaowuensis: Pronotum elongate, 1.15 times as long as basal width, rather straightly narrowed apicad, with silvery pubescence at latero-basal areas; elytra with four black bands, of which the basal two do not reach suture, 2.57 times as long as width across humeri and the apex of elytra more or less rounded.

P. mitonoi: Pronotum voluminous, 1.06 times as long as basal width, roundly expanded laterad at apical third; elytra with four black bands, of which basal three do not reach suture, 2.40 times as long as width across humeri and the apices of elytra almost truncated.

Specimen examined. 1 ♀, Houhe, Wufeng Tujiazu Zizhixian, Hubei Prov., China, alt. ca 1,100 m, 28–IV–2004, N. OHBAYASHI leg.

Distribution. China.

Nanostrangalia torui HOLZSCHUH, 1989

(Figs. 6, 12)

Nanostrangalia torui HOLZSCHUH, 1989, 155, figs. 1, 2, 4, 12 & 65.

Notes. *Nanostrangalia torui* was first described from Nepal. The specimens collected at Wufeng Tujiazu Zizhixian are almost identical with this species though the antennal color is not darkened at apical segments in male. Male genitalia are shown in Fig. 6 for the first time.

Specimens examined. 11 ♂♂, 3 ♀♀, Nanmuhe, Wufeng Tujiazu Zizhixian, Hubei Prov., China, alt. 440 m, 27–IV–2004, N. OHBAYASHI leg.

Distribution. Nepal, China: Hubei (new record).

Cerambycinae

O briini

Stenhomalus taiwanus taiwanus MATSUSHITA, 1933

Stenhomalus taiwanus MATSUSHITA, 1933, 307, pl. 1, fig. 13.

Stenhomalus taiwanus taiwanus: GRESSITT, 1951, 165; KUSAMA & TAKAKUWA, 1984, 270, pl. 31, figs. 210, 210 a–b.

Stenhomalus cleroides: GRESSITT, 1935, 148.

Specimen examined. 1 ♂, Yudu, 600 m alt., Wufeng Tujiazu Zizhixian, Hubei Prov., China, 4–V–2004, N. OHBAYASHI leg.

Distribution. China; Taiwan; Korean Pen.; Japan.

Stenopterini

Genus *Callimoxys* KRAATZ, 1863

Callimoxys KRAATZ, 1863, 105; Mulsant, 1862–1863, 215, Mulsant, 1863, 151; Thomson, 1864, 412; Fairmaire, 1864, 152; Lacordaire, 1869, 489; Leconte, 1873, 307; Ganglbauer, 1881, 687; Leconte & Horn, 1883, 292; Leng, 1886, 29; Reitter, 1912, 28; Plavilstshikov, 1932, 82, 106; Linsley, 1940, 37; Knuul, 1946, 203; Heyrovsky, 1955, 17; Linsley, 1963, 162; Harde, 1966, 51; Bense, 1995, 63.

Similar in general appearance to *Stenopterus* Illiger, but characterized by a combination of the following features:

Body medium-sized, more or less flattened, and with strongly attenuate elytra. Color black, with reddish female pronotum.

Head elongate, weakly declivous in front, with frons shortened and concave at anterior side to middle, clypeus large, eyes deeply emarginate. Antennae 11-segmented, not reaching abdominal apex, with segment 3 a little shorter than scape. Pronotum contracted to apex, widest behind middle, arcuate near middle of sides, provided with 3 or 5 smooth callosities on disc. Scutellum distinctly emarginate at apex. Elytra strongly attenuate, with knife-shaped apical parts, markedly dehiscent, not reaching abdominal apex. Hind wing slender, almost identical with that of *Stenopterus*; Pcu, 1A₃+2A and 3A well developed (Fig. 19–c). Fore coxal cavities distinctly angulate externally, closed behind by the extensions of pleural processes (Fig. 19–a). Mesosternal process very wide. Mid coxal cavities moderately opened to metepisterna (Fig. 19–a). Legs rather long; hind femur strongly clavate in anterior part to middle; hind tibia arcuate, with rows of small denticles (Fig. 19–d). Abdomen smooth and not reduced in both sexes, with 8th segment simple.

Median lobe (Fig. 19–e, f) spindle-shaped, suddenly declivous near apex; ventral plate turned up at sides and almost wholly covered with dorsal surface, with apical part pointed and bent ventrad at extremity; dorsal plate only narrowly exposing; median struts thin. Tegumen (Fig. 19–g, h) with paramere forming a pair of perpendicular walls, each lobe narrowed to rounded apex which is provided with several stout setae, ring part shortened and transverse.

Range. SE. Europe to SW. Russia, C. China and N. America.

Notes. *Callimoxys* KRAATZ has so far been known as a peculiar cerambycid genus containing two isolated species from Europe and North America in the Northern Hemisphere until the present discovery of *C. orientalis* sp. nov. from Central China. The discovery of *Callimoxys* from China is very important from the zoogeographical viewpoint since a very wide gap of the ranges in Eurasia could be filled up.

It seems difficult to follow up the dispersal and distribution of *Callimoxys* in the Northern Hemisphere. However, it is very interesting that the three known species occur in such widely isolated areas in the temperate zone, Europe, China and North America. Besides, the New World species, *C. sanguinicollis* (OLIVER) is morphologi-

cally rather isolated as compared with the other two known species from the Old World. The closely related genus, *Stenopterus* ILLIGER, is endemic to the Palearctic, and most members occur in southern Europe to Asia Minor. Though only two peculiar species are recorded from China, *Stenopterus* does not disperse to North America. *Callimoxys* and *Stenopterus* may have a common ancestor in old Chinese continent, and the *Callimoxys* lineage became differentiated and dispersed to the temperate zone of the Northern Hemisphere. After the dispersal, their distributions may be divided into the three isolated areas influenced by climatic change.

Callimoxys orientalis NIISATO et N. OHBAYASHI, sp. nov.

(Figs. 13, 14 & 19)

Male. Length 9.4–10.2 mm from apical margin of clypeus to abdominal apex, width 1.9–2.1 mm across humeral angles.

Female. Length 12–12.5 mm from apical margin of clypeus to abdominal apex, width 2.5–2.6 mm across humeral angles.

Elongate species for the genus, basically similar in facies to *C. gracilis*. Color entirely black in male, black with red pronotum and dull orange abdomen in female, with dull orange tip of terminal segment in both sexes, moderately shiny in general though matted on elytra, ventral surface, and apical six antennal segments.

Body sparsely clothed with long flying pale yellow hairs; antenna with sparse rows of black hairs on undersides of segments 3–6, and also 1 or 2 similar one on segments 2, 7 and 8; elytra with minute silvery white pubescence throughout, and a few black hairs near humeri; ventral surface of hind body densely with minute silvery white pubescence; legs sparsely with black hairs, with hind tibia conspicuously black haired.

Head distinctly wider than the maximum width of pronotum (1.2: 1), coarsely rugosely punctured; neck very long and narrow, nearly $\frac{2}{5}$ the length of head and $\frac{9}{13}$ the width across eyes, almost parallel-sided even at the part just behind eyes; frons strongly concave near middle; clypeus depressed and coarsely punctured on basal $\frac{2}{5}$; eyes large, strongly prominent laterad. Antennae long and slender, almost reaching abdominal apex in male or apex of 2nd ventrite in female; relative length of each antennal segment as follows:—3.7: 0.7: 3.0: 3.5: 4.2: 3.9: 3.9: 3.6: 3.6: 3.2: 3.6 in male, 4.0: 0.8: 3.0: 3.8: 4.5: 3.6: 3.6: 3.5: 3.5: 3.2: 3.5 in female.

Pronotum a little less than 1.2 times as long as the maximum width just behind middle, strongly contracted to apex, hardly so to base; sides arcuately constricted at apical $\frac{2}{5}$, weakly arcuate at a level between apical $\frac{2}{5}$ and basal $\frac{1}{3}$, then nearly parallel; disc coarsely rugosely punctured in most part except for rounded five callosities and lateral swellings, the former callosities arranged as follows: a pair of them at the sides of apical $\frac{1}{3}$, a pair of larger ones just behind middle, and a rounded one at middle of basal $\frac{1}{3}$.

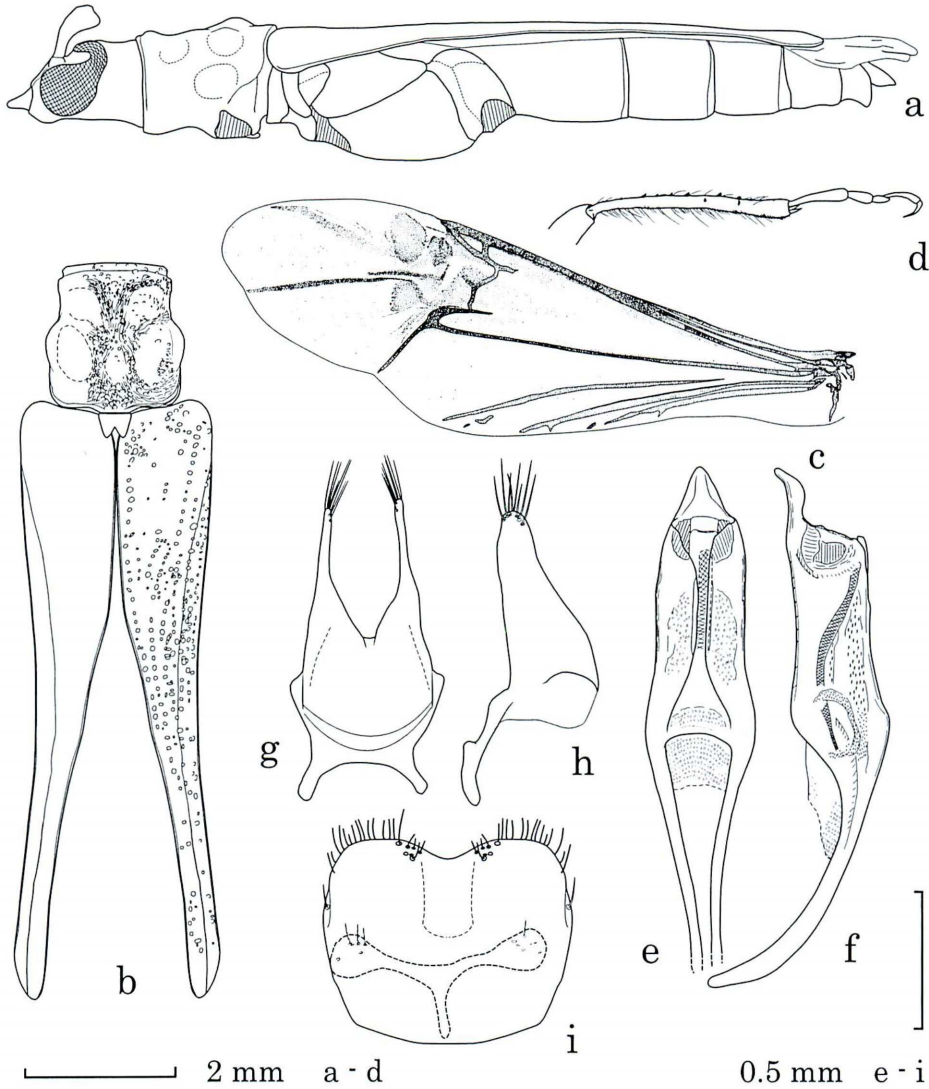


Fig. 19. *Callimoxys orientalis* NIISATO et N. OHBAYASHI, sp. nov. — a, Body profile; b, pronotum and elytra; c, right hind wing; d, right hind tibia and tarsus; e, median lobe in dorsal view; f, ditto in lateral view; g, tegumen in dorsal view; h, ditto in lateral view; i, 8th tergite in dorsal view, showing 8th sternite.

Scutellum large, deeply triangularly concave at apex.

Elytra extremely long, nearly four times as long as pronotum, strongly wider than pronotum (1.4 : 1), nearly reaching the apical margin (male) or middle (female) of 6th tergite, slightly exposing the sides of metathorax, with suture narrowly dehiscent from basal 1/5, and strongly so in apical 5/8; disc moderately punctured in irregular rows,

provided with a narrow costa extending from behind humeri to apices, the costa being conspicuous in apical 2/5.

Legs very long and rather slender; hind tibia weakly arcuate, provided with eight minute dents along external margin; hind tarsus long and thin, with 1st segment twice the length of the following one.

Ventral surface somewhat coarsely shagreened; prosternum distinctly transversely furrowed before coxal cavities. Abdomen elongate, gently arcuate at sides, with anal sternite wide-triangularly concave at apex in male, weakly arcuate in female; 8th tergite slightly divergent to apex, which is emarginate at middle, provided with a few setae along margin; 8th sternite forming long slender lobes, roundly thickened at each apex.

Median lobe with spindle-shaped apical lobe and long median struts; viewed dorsally, the extended walls of ventral plate almost approximate in long line near middle, arcuately dehiscent towards apex and base, with quadrate apical part of dorsal plate; ventral plate with apical part triangularly pointed in dorsal view, produced and then arcuately and rather suddenly bent ventrad in profile. Tegumen strongly wide, with paramere parallel in apical half in dorsal view, and each provided with eight stout setae at the extremity.

Type series. Holotype: ♂, Houhe, Wufeng Tujiazuo Zizhixian, Hubei Prov., China, ca 1,100 m alt., 30–IV–2004, N. OHBAYASHI leg. (YUAC). Paratypes: 2♂♂, 1♀, same data as for the holotype; 1♀, almost the same as the preceding but the date is 28–IV–2004 (EUEL & TN); 1♂, same locality as the preceding but the date and collector are 28–IV–2004, WANG W. leg. (YUAC).

Diagnostic notes. This new species no doubt has a close relationship with the old known European species, *C. gracilis* (BRULLÉ), but is clearly distinguished from the latter by several important characters as shown in the following key. The Nearctic species, *C. sanguinicollis* (OLIVER) is rather isolated in the genus, because of the rounded form of pronotum, shorter appendages and brownish elytra. *Callimoxys sanguinicollis* shows some relationship with *Stenopterus* ILLIGER in view of its heterogeneity in the genus.

Key to the Species of the Genus *Callimoxys* KRAATZ

- 1(2) Pronotum almost as long as the basal width, strongly constricted near base; elytra largely brown, not reaching 6th abdominal tergite; N America.....*C. sanguinicollis* (OLIVER).
- 2(1) Pronotum distinctly longer than the basal width, subparallel-sided or gently constricted near base; elytra entirely black, usually exceeding 6th abdominal tergite.
- 3(4) Pronotum provided with a pair of oblong callosities at sides and a long ridge at middle; elytra about three times as long as pronotum; female abdomen black; SE. Europe to SW. Russia.....*C. gracilis* (BRULLÉ).

- 4(3) Pronotum provided with five rounded callosities, with median anterior part only rugosely punctured, without callosity; elytra about four times as long as pronotum; female abdomen dull orange; China
*C. orientalis* sp. nov.

***Kunbir pilosipes* HOLZSCHUH, 2003**

(Fig. 15)

Kunbir pilosipes HOLZSCHUH, 2003, 187, fig. 31.

Specimen examined. 1 ♀, Wudao Xia, Baokang Xian, Hubei Prov., China, 11–VI–2004, M. SATÔ leg.

Distribution. China: Shaanxi and Hubei (new record).

Note. This species was recently described from Shaanxi based on four male specimens. This is the first record from Hubei Province.

***Kunbir nomurai* HAYASHI, 1974**

(Figs. 16, 17)

Kunbir nomurai HAYASHI, 1974, 25; YU & NARA, 1988, 65, pl. 9, fig. 3; NAKAMURA *et al.*, 1992, 33; YU, NARA & CHU, 2002, 91, pl.10, fig. 14; CHOU, 2004, 160.

Specimen examined. 1 ♀, Houhe, Wufeng Tujiazu Zizhixian, Hubei Prov., China, ca 1,100 m alt., 27–IV–2004, N. OHBAYASHI leg.; 1 ♂, 2 ♀♀, almost of the same data as the preceding, but the date is 30–IV–2004.

Distribution. China: Hubei (new record); Taiwan.

Note. The specimens examined agree well with the original population of Taiwan. This is the first record of the species from the continental side of China.

Molorchini

***Glaphyra (Glaphyra) planicollis* NIISATO et N. OHBAYASHI, sp. nov.**

(Fig. 18)

Female. Length 9.5 mm from apical margin of clypeus to abdominal apex, width 1.2 mm across humeral angles.

Medium-sized species of somewhat depressed body, indistinctly maculate long elytra and thin appendages. Color black in head and thoraces, with blackish brown elytra bearing V-shaped obsolete yellowish maculation near suture of basal 2/3, dark reddish brown in mouthparts except for black tips of mandibles, antennae except for blackish scape, all legs chestnut brown, blackish brown on abdomen, tarsi slightly reddish, moderately shiny.

Body moderately clothed with long flying brownish and pale hairs, mostly on pronotum, base of elytra, and all tibiae; antenna with sparse rows of long brownish hairs on undersides of segments 2–7, and with dense minute pubescence in apical 2/5 of 5th segment to terminal segment; pronotum without pubescent maculation; ventral surface of hind body with dense white pubescence on mesosternum and metepisterna, along posterior margin of hind coxa, and at sides of sternites 3–7.

Head a little wider than the apical width (5.3: 5) or slightly narrower than the maximum width (5.3: 6) of pronotum, sparsely with large punctures; frons flattened, with an obsolete median longitudinal furrow, clypeus large, trapezoidal, smooth except for large punctures near base; eyes not so large, weakly prominent laterad, with lower lobes nearly three times as deep as genae. Antennae long and very thin, reaching base of 6th tergite, with 3rd segment almost equal in length to scape and 4th segment, basal four segments with a few coarse punctures, terminal segment obtusely pointed; relative length of each antennal segment as follows:– 2.3: 0.6: 2.2: 2.2: 4.6: 3.8: 3.4: 2.5: 2.3: 2.1: 2.5.

Pronotum 1.16 times as long as the maximum width at basal 2/7, slightly wider than head (6: 5.3); sides gently arcuately divergent to basal 3/7, with very weak triangular lateral swellings near basal 2/5, then gently arcuately convergent to just before base; apex almost as wide as base, weakly emarginate at margin; disc almost flattened, hardly uneven, coarsely reticulate throughout except for narrow basal and apical parts, and provided with five small smooth callosities arranged as follows: a pair of them at external sides of apical 3/20, a narrow longitudinal median one just behind middle, a pair at basal 1/3 which are almost punctured on surface and invisible.

Scutellum subquadrate, small, deeply concave along midline.

Elytra moderately long, 1.28 times as long as humeral width, reaching basal 1/4 of 3rd tergite, 1.12 times as long as pronotum, slightly wider than pronotum (17: 15), hardly exposing the sides of metathorax, almost straightly narrowed to narrowly rounded apex, with suture narrowly arcuately dehiscent from basal 1/5; disc almost flattened, obliquely widely depressed just behind middle near suture, with apical third gently raised, densely with medium-sized punctures, though punctation becomes shallower near scutellum and apical raised part.

Legs slender and rather long, distinctly compressed; hind femur rather strongly clavate from just behind middle; hind tarsi thin and rather short, with first segment a little longer than the following two combined.

Prosternum coarsely punctured, with apical half closely transversely furrowed; prosternal process narrowed apicad, and reaching a level of basal half of coxal cavities. Meso- and metathoraces shagreened, provided with weak punctures; mesosternal process wide, gently narrowed to apex which is almost truncate. Abdomen rather elongate, provided with a few punctures, with anal sternite broadly transversely truncate, anal tergite weakly emarginate on apical margin.

Holotype. ♀, Houhe, Wufeng Tujiazu Zizhixian, Hubei Prov., China, ca 1,100 m alt., 30–IV–2004, N. OHBAYASHI leg. (YUAC).

Diagnostic notes. Though ordinary in general appearance, *G. planicollis* sp. nov. is unique in the following characteristics: 1) antennae long and thin, with elongate 3rd segment which is almost as long as scape or 4th segment, 2) pronotum coarsely reticulate and provided with five small callosities on disc, with lateral tubercles at basal 2/7, 3) elytra relatively long, extending to 3rd tergite, decorated with a vague pale V-shaped maculation, 4) all legs chestnut brown in color, without pale part, strongly compressed in femora. This new species is somewhat similar to the Far Eastern species, *G. starki* (SHABLIOVSKY), but distinguished from the latter by the larger and flattened body, the reticulate pronotal disc and different arrangement of dense pubescence of abdominal sternite.

Acknowledgements

We would like to express our hearty thanks to Mr. WANG Bang-zhu, vice-governor of Wufeng Tujiazu Zizhixian for his kindness concerning our survey including special effort for obtaining permission for this trip. We also thank Professor LI Li-zhen of Shanghai Teachers University who joined us as a member of the expedition and helped us in various ways. Our thanks are also due to Dr. Shun-Ichi UENO of the National Science Museum, Tokyo, for his critical review of the manuscript, to Dr. Masataka SATO of Nagoya for offering valuable specimens for our study, and to Mr. Carolus HOLZSCHUH of Villach for determination of the *Kunbir* specimens.

要 約

大林延夫・新里達也・王 文凱：中国湖北省のカミキリムシの研究, I. —— 本論文は、2004年春に大林と王によって実施された、湖北省五峰土家族民族自治県后河におけるカミキリムシ相の調査結果の第1報である。今回、ハナカミキリ亜科の *Notorhabdium bangzhui* OHBAYASHI et WANG, *Encyclops hubeiensis* OHBAYASHI et WANG および *Parastrangalis houhensis* OHBAYASHI et WANG の3新種、カミキリ亜科の *Callimoxys orientalis* NIISATO et OHBAYASHI と *Glaphyra planicollis* NIISATO et OHBAYASHI の2新種を記載した。このうち、*Notorhabdium bangzhui* は本属第2番目の種であるとともに、属としては中国から初めて記録される。また、*Callimoxys* 属はこれまでに、欧州と北米に孤立する2種が知られていただけで、ユーラシア中央部からの新種の発見は動物地理学上重要である。さらに、*Parastrangalis mitonoi* (HAYASHI et IGA) および *P. shaowuensis* (GRESSITT) をアオバホソハナカミキリ属 *Strangalomorpha* からニンフハナカミキリ属に所属の変更を行った。また、*Nanostrangalia torui* HOLZSCHUH, *Kunbir pilosipes* HOLZSCHUH および *K. nomurai* HAYASHI を湖北省から新たに記録した。

References

- GRESSITT, J. L., 1951. Longicorn beetles of China. *Longicornia*, **2**: 1–667, pls. 1–22.
 HAYASHI, M. (& M. IGA), 1951. Studies on Cerambycidae from Japan and its adjacent regions (1). *Ent. Rev. Japan, Osaka*, **2**: 75–82.

- HAYASHI, M. 1959. Studies on Cerambycidae from Japan and its adjacent regions (10). *Ent. Rev. Japan, Osaka*, **10**: 55–63. (In Japanese.)
- 1960. Study of the Lepturinae (Col.: Cerambycidae). *Niponius, Takamatsu*, **1**(6): 1–26.
- 1974. New and unrecorded longicorn beetles from Taiwan (Coleoptera: Cerambycidae). *Bull. Osaka Jonan Women's Jr. Coll.*, (7): 1–36.
- & A. VILLIERS, 1989. Revision of the Asian Lepturinae (Coleoptera: Cerambycidae) with special reference to the type specimens' inspection. Part III. *Ibid.*, (24): 1–43, 4 pls.
- HOLZSCHUH, C., 1989. Beschreibung neuer Bockkäfer aus Europ und Asien (Cerambycidae, Col.). *Koleopt. Rdsch.*, **59**: 153–183.
- 1991a. Neue Bockkäfer aus Asien I, 33 neue Bockkäfer aus der palaearktischen und orientalischen Region (Coleoptera, Cerambycidae); 45 neue Bockkäfer aus Asien, vorwiegend auf Thailand (Coleoptera: Disteniidae und Cerambycidae). *FBVA Berichte*, (51): 1–75.
- 1991b. Neue Bockkäfer aus Asien II, 63 neue Bockkäfer aus Asien, vorwiegend auf China und Thailand (Coleoptera: Disteniidae und Cerambycidae). *Ibid.*, (60): 1–71.
- 1992. Neue Bockkäfer aus Asien III, 57 neue Bockkäfer aus Asien, vorwiegend auf China, Thailand und Vietnam (Coleoptera: Cerambycidae). *Ibid.*, (69): 1–63.
- 1993. Neue Bockkäfer aus Asien IV, Sechzig neue Bockkäfer aus Europ und Asien, vorwiegend auf China und Thailand (Coleoptera: Disteniidae und Cerambycidae). *Ibid.*, (75): 1–63.
- 2003. Beschreibung von 72 neuen Bockkäfer aus Asien, vorwiegend aus China, Indien, Laos und Thailand (Coleoptera, Cerambycidae). *Ent. basil.*, **25**: 147–241.
- JIANG, S.-N., & L. CHEN, 2001. Coleoptera Cerambycidae Lepturinae. *Fauna Sinica, Insecta*, **21**: i–xiii+1–296.
- LINSLEY, E. G., 1963. Taxonomy and Classification of the subfamily Cerambycinae, tribes Elaohidionini through Rhinotragini. *The Cerambycidae of North America*, V. 165 pp. Univ. California Press, Berkley.
- NAKAMURA, S., H. MAKIHARA & A. SAITO, 1992. Check-list of Longicorn-beetles of Taiwan. 126 pp. Hiba Soc. of Nat. Hist., Hiroshima.
- NAKANE, T., & K. OHBAYASHI, 1957. Notes on the genera and species of Lepturinae (Coleoptera, Cerambycidae) with special reference to their male genitalia. *Sci. Rept. Saikyo Univ.*, (Nat. Sci. & Liv. Sci.), **2**: 47–52.
- OHBAYASHI, N., & T. SHIMOMURA, 1986. Two new lepturine beetles of the tribe Xylosteini (Coleoptera, Cerambycidae) from the Darjeeling District and the Malay Peninsula. *Ent. Pap. Pres. KUROSAWA, Tokyo*, 282–290.
- TAMANUKI, K., 1942. Cerambycidae, 2, Lepturinae. *Fn. Japonica, Tokyo*, **10** (8–15): i+viii+259 pp. Sanseido, Tokyo. (In Japanese.)